

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. An interior rearview mirror system for a vehicle comprising:
a casing;
a reflective element, said reflective element having a length axis and a width axis; and
a video display screen slidably mounted at said casing and slidable in a direction
5 generally parallel to said length axis of said reflective element between a non-use position, wherein said video display screen is positioned substantially within said casing, and a use position, wherein said video display screen is substantially extended from a side of said casing for viewing by an occupant of the vehicle.
2. The interior rearview mirror system of claim 1, wherein said video display screen is mounted to at least one sliding member which is slidable relative to said casing.
3. The interior rearview mirror system of claim 2, wherein said at least one sliding member is slidable along or within a sliding block mounted within said casing.
4. The interior rearview mirror system of claim 1, wherein said video display screen is slidable along at least one rail positioned within said casing.
5. The interior rearview mirror system of claim 1, wherein said video display screen is substantially extended toward the driver side of the vehicle in said use position.
6. The interior rearview mirror system of claim 1, wherein said video display screen is substantially extended toward the passenger side of the vehicle in said use position.
7. The interior rearview mirror system of claim 1, wherein said video display screen is pivotable about a pivot joint when extended to said use position.
8. The interior rearview mirror system of claim 1, wherein said video display screen is manually movable between said non-use position and said use position.

9. The interior rearview mirror system of claim 8, wherein said video display screen includes a grip or handle for grasping and pulling said video display screen toward said use position.
10. The interior rearview mirror system of claim 1, wherein said video display screen is biased toward one of said use position and said non-use position.
11. The interior rearview mirror system of claim 10, wherein said video display screen is biased toward said use position, said video display screen being selectably securable at said non-use position.
12. The interior rearview mirror system of claim 1, wherein said video display screen is extended and retracted in response to a drive system.
13. The interior rearview mirror system of claim 12, wherein said drive system comprises one of a linear actuator, a solenoid device, a rack and pinion device, an electrical drive motor, a non-armature electrical motor, a shape memory alloy device, an electrically induced stress-strain device and a bio-material.
14. The interior rearview mirror system of claim 12, wherein said drive system comprises a rotational drive motor that drives a belt to rotatably drive a pinion, whereby rotation of said pinion causes translational movement of said video display screen.
15. The interior rearview mirror system of claim 1, wherein said video display screen is extended in response to a signal indicative of an activating event.
16. The interior rearview mirror system of claim 15, wherein said video display screen is extended via one of a linear actuator, a solenoid device, a rack and pinion device, an electrical drive motor, a non-armature electrical motor, a shape memory alloy device, an electrically induced stress-strain device and a bio-material.
17. The interior rearview mirror system of claim 15, wherein said activating event comprises at least one of actuation of a manual input, an engagement of the reverse gear of the vehicle, actuation of a reverse viewing system, actuation of a cabin viewing device,

5 actuation of a video communication device, actuation of a communication system, detection of a vehicle condition, actuation of a navigation system of the vehicle and an approach of a waypoint of a programmed route of a navigation system of the vehicle.

18. The interior rearview mirror system of claim 15, wherein said activating event comprises an approach of a waypoint of a programmed route of a navigation system of the vehicle, said display screen being operable to display at least one of a set of driving instructions, a compass heading and a map to the driver of the vehicle when said display
5 screen is extended.

19. The interior rearview mirror system of claim 18, wherein said display screen is retracted after the vehicle has passed the waypoint.

20. The interior rearview mirror system of claim 15, wherein said video display screen is retracted to said non-use position in response to a signal indicative of a deactivating event.

21. The interior rearview mirror system of claim 20, wherein said deactivating event comprises at least one of actuation of a manual input, a disengagement of the reverse gear of the vehicle, deactivation of a reverse viewing system, deactivation of a cabin viewing device, deactivation of a video communication device, deactivation of a communication system,
5 deactivation of a navigation system of the vehicle and passing a waypoint of a programmed route of a navigation system of the vehicle.

22. The interior rearview mirror system of claim 20, wherein at least one of said activating event and said deactivating event is manually overridable in response to a manual input.

23. The interior rearview mirror system of claim 1 including a screen control operable to control the video display on said video display screen.

24. The interior rearview mirror system of claim 23, wherein said screen control is operable to control the video display on said video display screen as a function of at least one of a reverse viewing system, a cabin viewing device, a video communication device and a navigation system.

25. The interior rearview mirror system of claim 23, wherein said screen control is mounted within said casing and connected to said video display screen via an electrical connector.

26. The interior rearview mirror system of claim 23, wherein said screen control is mounted to said video display screen and slidable with said video display screen, said video display screen and said screen control comprising a video display module.

27. The interior rearview mirror system of claim 1, wherein said reflective element is positioned at said casing.

28. The interior rearview mirror system of claim 27 including a mounting member for adjustably mounting said casing to a mounting portion within the vehicle.

29. The interior rearview mirror system of claim 28, wherein said mounting member is configured to mount said casing to an interior surface of a windshield of the vehicle.

30. The interior rearview mirror system of claim 28, wherein said mounting member is configured to mount said casing to an accessory console positioned within the vehicle.

31. The interior rearview mirror system of claim 30, wherein said mounting member is fixedly attached to said casing and adjustably mountable to said accessory console.

32. The interior rearview mirror system of claim 30, wherein said accessory console is configured to receive at least one electronic sub-module, said at least one electronic sub-module having electronic circuitry associated with at least one electronic accessory, said accessory module being configured to connect to enabling circuitry that interfaces with said
5 electronic circuitry of said at least one sub-module.

33. An accessory system for a vehicle comprising:
an overhead accessory module positionable along an upper portion of the vehicle; and

an interior rearview mirror assembly positionable generally below said overhead accessory module, said interior rearview mirror assembly being electrically connected to said accessory module, said interior rearview mirror assembly including:

a casing;

a reflective element, said reflective element having a length axis and a width axis; and

a video display screen slidably mounted at said casing and slidable in a direction generally parallel to said length axis of said reflective element between a non-use position, wherein said video display screen is positioned substantially within said casing, and a use position, wherein said video display screen is substantially extended from a side of said casing for viewing by an occupant of the vehicle.

34. The accessory system of claim 33, wherein said video display screen is extended in response to a signal indicative of an activating event.

35. The accessory system of claim 34, wherein said activating event comprises at least one of actuation of a manual input, an engagement of the reverse gear of the vehicle, actuation of a reverse viewing system, actuation of a cabin viewing device, actuation of a video communication device, actuation of a communication device, detection of a vehicle condition, actuation of a navigation system of the vehicle and approach of a waypoint of a programmed route of a navigation system of the vehicle.

36. The accessory system of claim 34, wherein said video display screen is retracted to said non-use position in response to a signal indicative of a deactivating event.

37. The accessory system of claim 36, wherein said deactivating event comprises at least one of actuation of a manual input, a disengagement of the reverse gear of the vehicle, deactivation of a reverse viewing system, deactivation of a cabin viewing device, deactivation of a video communication device, deactivation of a communication device, deactivation of a navigation system of the vehicle and passing a waypoint of a programmed route of a navigation system of the vehicle.

38. The accessory system of claim 36, wherein at least one of said activating event and said deactivating event is manually overridable in response to a manual input.

39. The accessory system of claim 34, wherein said activating event comprises an approach of a waypoint of a programmed route of a navigation system of the vehicle, said display screen being operable to display at least one of a set of driving instructions, a compass heading and a map to the driver of the vehicle when said display screen is extended.
40. The accessory system of claim 39, wherein said display screen is retracted after the vehicle has passed the waypoint.
41. The accessory system of claim 33, wherein said video display screen is extended and retracted in response to a drive system.
42. The accessory system of claim 41, wherein said drive system comprises one of a linear actuator, a solenoid device, a rack and pinion device, an electrical drive motor, a non-armature electrical motor, a shape memory alloy device, an electrically induced stress-strain device and a bio-material.
43. The accessory system of claim 41, wherein said drive system comprises a rotational drive motor that drives a belt to rotatably drive a pinion, whereby rotation of said pinion causes translational movement of said video display screen relative to said casing.
44. The accessory system of claim 33 including a screen control operable to control the video display on said video display screen.
45. The accessory system of claim 44, wherein said screen control is operable to control the video display on said video display screen as a function of at least one of a reverse viewing system, a cabin viewing device, a video communication device and a navigation system.
46. The accessory system of claim 44, wherein said screen control is mounted within said casing and connected to said video display screen via an electrical connector.

47. The accessory system of claim 44, wherein said screen control is mounted to said video display screen and slidable with said video display screen, said video display screen and said screen control comprising a video display module.
48. The accessory system of claim 33, wherein said mirror assembly is configured to mount to said accessory module.
49. The accessory system of claim 48 including a mounting member that is fixedly mounted to said mirror assembly and adjustably mounted to said accessory module.
50. The accessory system of claim 33, wherein said accessory module comprises first and second overhead cross car modules, each of said first and second cross car modules extending at least partially across an upper portion of a vehicle and generally laterally or transverse to the direction of travel of a vehicle.
51. The accessory system of claim 50, wherein said first and second cross car modules include at least one electrical accessory.
52. The accessory system of claim 51, wherein said accessory module includes at least one longitudinally extending member extending between and connecting said first and second cross car modules, said first cross car module being electrically connected to a vehicle wiring harness, said first cross car module being electrically connected to said second cross car
5 module via at least one electrical connector extending along said at least one longitudinally extending member.
53. The accessory system of claim 33, wherein said accessory module is configured to receive at least one electronic sub-module, said at least one electronic sub-module having electronic circuitry associated with at least one electronic accessory.
54. The accessory system of claim 53, wherein said accessory module is configured to connect to enabling circuitry that interfaces with said electronic circuitry of said at least one sub-module.

55. The accessory system of claim 54, wherein said enabling circuitry interfaces with said electronic circuitry of said at least one sub-module to enable said at least one sub-module to control said at least one electronic accessory associated with said at least one sub-module.

56. The accessory system of claim 33, wherein said accessory module comprises at least two sub-modules and a trim portion, said trim portion being attachable to said sub-modules to adapt said accessory module to configure to an interior portion of a particular vehicle.

57. The accessory system of claim 33, wherein said accessory module includes a telephone receiving device for receiving a cellular telephone, said telephone receiving device being operable to at least one of (a) charge a battery of the telephone when the telephone is received in said telephone receiving device, and (b) connect the telephone to a vehicle-based
5 communications system of the vehicle to provide a hands-free telephone system when the telephone is received in said telephone receiving device.

58. An accessory system for a vehicle comprising:

an interior rearview mirror assembly having a casing and a reflective element, said reflective element having a length axis and a width axis; and

a display screen movably mounted at said casing and movable to move between a
5 non-use position, wherein said display screen is not directly viewable, and a use position, wherein said display screen is substantially extended from a portion of said mirror assembly for viewing by an occupant of the vehicle, said display screen being automatically moved to said use position in response to an activating event.

59. The accessory system of claim 58, wherein said display screen is at least one of pivotably mounted at said casing and slidably mounted at said casing.

60. The accessory system of claim 58, wherein said activating event comprises at least one of actuation of a manual input, an engagement of the reverse gear of the vehicle, actuation of a reverse viewing system, actuation of a cabin viewing device, actuation of a video communication device, actuation of a communication device, detection of a vehicle
5 condition, actuation of a navigation system of the vehicle and approach of a waypoint of a programmed route of a navigation system of the vehicle.

61. The accessory system of claim 58, wherein said video display screen is retracted to said non-use position in response to a signal indicative of a deactivating event.
62. The accessory system of claim 61, wherein said deactivating event comprises at least one of actuation of a manual input, a disengagement of the reverse gear of the vehicle, deactivation of a reverse viewing system, deactivation of a cabin viewing device, deactivation of a video communication device, deactivation of a communication device, deactivation of a navigation system of the vehicle and passing a waypoint of a programmed route of a navigation system of the vehicle.
63. The accessory system of claim 58, wherein said display screen is automatically movable to said use position in response to multiple activating events.
64. The accessory system of claim 63, wherein at least one of said activating events and said deactivating events is manually overridable in response to a manual input.
65. The accessory system of claim 58 including a navigation system, said display screen being operable to display at least one of instructions, a compass heading, and a map indicative of a selected route output of said navigation system.
66. The accessory system of claim 58, wherein said activating event comprises an approach of a waypoint of a selected route, said display screen displaying said at least one of an instruction and a map pertaining to the waypoint to the driver of the vehicle when said display screen is extended.
67. The accessory system of claim 66, wherein said display screen is retracted after the vehicle has passed the waypoint.
68. The accessory system of claim 66, wherein said navigation system is selectably operable to set a first activating event to comprise an approach of a selected waypoint of the selected route.

69. The accessory system of claim 58, wherein said display screen is extended and retracted in response to a drive system.

70. The accessory system of claim 69, wherein said drive system comprises one of a linear actuator, a solenoid device, a rack and pinion device, an electrical drive motor, a non-armature electrical motor, a shape memory alloy device, an electrically induced stress-strain device and a bio-material.

71. The accessory system of claim 69, wherein said drive system comprises a rotational drive motor that drives a belt to rotatably drive a pinion, whereby rotation of said pinion causes translational movement of said display screen relative to said casing.

72. The accessory system of claim 58 including a display control operable to control the display on said display screen.

73. The accessory system of claim 72, wherein said display control is operable to dynamically control the display on said display screen as a function of at least one of a reverse viewing system, a cabin viewing device, a communication device and a navigation system.

74. The accessory system of claim 72, wherein said display control is mounted within said casing and connected to said display screen via an electrical connector.

75. The accessory system of claim 72, wherein said display control is mounted to said display screen and slidable with said display screen, said display screen and said display control comprising a video display module.

76. The accessory system of claim 58 including an overhead accessory module positionable along an upper portion of the vehicle.

77. The accessory system of claim 76, wherein said mirror assembly is configured to mount to said overhead accessory module.

78. The accessory system of claim 77 including a mounting member that is fixedly mounted to said mirror assembly and adjustably mounted to said overhead accessory module.

79. The accessory system of claim 76, wherein said overhead accessory module comprises first and second overhead cross car modules, each of said first and second cross car modules extending at least partially across an upper portion of a vehicle and generally laterally or transverse to the direction of travel of a vehicle.

80. The accessory system of claim 79, wherein said first and second cross car modules include at least one electrical accessory.

81. The accessory system of claim 80, wherein said accessory module includes at least one longitudinally extending member extending between and connecting said first and second cross car modules, said first cross car module being electrically connected to a vehicle wiring harness, said first cross car module being electrically connected to said second cross car
5 module via at least one electrical connector extending along said at least one longitudinally extending member.

82. The accessory system of claim 76, wherein said overhead accessory module is configured to receive at least one electronic sub-module, said at least one electronic sub-module having electronic circuitry associated with at least one electronic accessory.

83. The accessory system of claim 82, wherein said overhead accessory module is configured to connect to enabling circuitry that interfaces with said electronic circuitry of said at least one sub-module.

84. The accessory system of claim 83, wherein said enabling circuitry interfaces with said electronic circuitry of said at least one sub-module to enable said at least one sub-module to control said at least one electronic accessory associated with said at least one sub-module.

85. The accessory system of claim 76, wherein said overhead accessory module comprises at least two sub-modules and a trim portion, said trim portion being attachable to said sub-modules to adapt said overhead accessory module to configure to an interior portion of a particular vehicle.

86. The accessory system of claim 76, wherein said overhead accessory module includes a telephone receiving device for receiving a cellular telephone, said telephone receiving device being operable to at least one of (a) charge a battery of the telephone when the telephone is received in said telephone receiving device, and (b) connect the telephone to a vehicle-based communications system of the vehicle to provide a hands-free telephone system when the telephone is received in said telephone receiving device.